

Physics	Group-II	Paper-II
Time: 15 Minutes	(Objective Type)	Max. Marks: 12

**Note:** Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

**1-1- Power of hair dryer:**

- (a) 5000 watts (b) 1500 watts  
(c) 1000 watts ✓ (d) 800 watts

**2- The brain of any computer system is:**

- (a) Monitor (b) Memory  
(c) C.P.U ✓ (d) Control unit

**3- Speed of light in glass:**

- (a)  $2.0 \times 10^8$  m/s ✓ (b)  $3.0 \times 10^8$  m/s  
(c)  $2.0 \times 10^6$  m/s (d)  $3.0 \times 10^6$  m/s

**4- Boolean expression of AND operation:**

- (a)  $X = A.B$  ✓ (b)  $X = A + B$   
(c)  $X = \bar{A}$  (d)  $X = \bar{A}.B$

**5- Half-life of isotope of cobalt  ${}_{27}^{60}\text{Co}$ :**

- (a) 30 years ✓ (b) 20 years  
(c) 15 years (d) 10 years

**6- The formula for the time period of a simple pendulum:**

- (a)  $T = 2\pi \sqrt{\frac{g}{l}}$  (b)  $T = 2\pi \sqrt{\frac{l}{g}}$  ✓  
(c)  $T = 2\pi \sqrt{\frac{m}{k}}$  (d)  $T = 2\pi \sqrt{\frac{k}{m}}$



7- **Specific resistance of iron:**

- (a)  $9.8 \times 10^{-8} \Omega\text{m}$  ✓
- (b)  $100 \times 10^{-8} \Omega\text{m}$
- (c)  $10.6 \times 10^{-8} \Omega\text{m}$
- (d)  $5.25 \times 10^{-8} \Omega\text{m}$

8- **Speed of sound in steel at 25°C:**

- (a) 3880 m/s
- (b) 5950 m/s
- (c) 6040 m/s
- (d) 5960 m/s ✓

9- **The direction of induced e.m.f in a circuit is in accordance with conservation of:**

- (a) Mass
- (b) Charge
- (c) Momentum
- (d) Energy ✓

10- **Capacitance is defined as:**

- (a)  $VC$
- (b)  $\frac{Q}{V}$  ✓
- (c)  $QV$
- (d)  $\frac{V}{Q}$

11- **Index of refraction of ice:**

- (a) 1.00
- (b) 1.33
- (c) 1.31 ✓
- (d) 1.36

12- **The process by which electrons are emitted by a hot metal surface is known as:**

- (a) Boiling
- (b) Evaporation
- (c) Conduction
- (d) Thermionic emission ✓